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10/574,763

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NXP, B.V.

NXP INTELLECTUAL PROPERTY DEPARTMENT

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EXAMINER

HANNON, CHRISTIAN A

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

04/08/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

| | | | |
|------------------------------|--|---------------------------------------|--|
| Office Action Summary | Application No. 10/574,763 | Applicant(s) SCHOOFS ET AL. | |
| | Examiner CHRISTIAN A. HANNON | Art Unit 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,12,13,16 and 18 is/are rejected.
- 7) ☒ Claim(s) 3-11,14,15,17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is response to applicant's response filed on 12/19/2007. Claims 1-19 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 12, 13, 16 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffi (US 6,781,452), hereinafter Cioffi.

Regarding claims 1, 16 & 18, Cioffi teaches a transmitter, method and system comprising a power amplifier having a power supply input and an output for supplying a transmission signal with an output power (Figure 6, Item 601), a power supply having power supply outputs for supplying a first power supply voltage having a first level and a second power supply voltage having a second level (Figure 6, V_{batt} , three way node of figure 6; Cioffi), a switching circuit arranged between the power supply outputs and the power supply input (Figure 6, Q1, Q2, Q3; Cioffi) and a controller for supplying in response to a first power change command indicating a first desired level of the output power a control signal to the switching circuit to supply the first power supply voltage to the power supply input and for supplying in response to a second power change

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command indicating a second desired level of the output power and succeeding the first power change command the control signal to the switching circuit to supply either the first power supply voltage or the second power supply voltage to the amplifier power supply input depending on values of said first desired level and said second desired level, the examiner has interpreted the two stages of the claim to be analogous as the two stages of power control when the final stage of the amplifier of figure 6 is either turned on or off based on the switching control signals sent from the controller 611 and power controller 615 (Column 5, Lines 4-36; Cioffi). However Cioffi fails to explicitly teach that the second level is higher than the first, although one of ordinary skill in the art would be able to see that since Cioffi teaches a high and a low power state, that obviously one fully connected, that is switched on power state, would be higher than a state in which only some of the leads to the PA were activated. It is further noted that as claim 18 recites the base station in the preamble of the claim it has not been given weight in evaluation of the claim, as the claim does not require the preamble to be effective.

Regarding claim 12, Cioffi teaches claim 1, wherein the power supply is arranged for supplying a third power supply voltage having a third level, and wherein the controller is arranged for dynamically controlling the power supply to supply the second level which is higher than the first level, and the third level which is lower than the first level. The examiner has construed the three levels as those of the high and low power modes of Cioffi and the third level depending on whether or not Q3 is switched on or off,

obvious to one of ordinary skill in the art these levels could be arranged in any order merely based on designer choice (Column 5, Lines 13-20 & 29-31; Cioffi).

Regarding claim 13, Cioffi teaches claim 12, wherein the controller is arranged for controlling the switching circuit to supply either the first power supply voltage the second power supply voltage or the third power supply voltage to the amplifier power supply input depending on whether the second power change command indicates that the output power has to be stable, to increase or to decrease, respectively. Obvious to one of ordinary skill in the art these levels could be arranged in any order merely based on designer choice (Column 5, Lines 13-20 & 29-31; Cioffi).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffi in view of Klomdsdorf et al (US 7,151,947), hereinafter Klomdsdorf.

Regarding claim 2, Cioffi teaches claim 1, however Cioffi fails to teach wherein the transmitter is a handheld apparatus and further comprises a receiving circuit for receiving a power control command from a base station to supply the first power change command and the second power change command. Klomdsdorf teaches wherein a transmitter is a handheld apparatus, a mobile station/phone, and further comprises a receiving circuit for receiving a power control command from a base station to supply the first power change command and the second power change command (Column 3, Lines 20-24; Column 4, Lines 57-67; Klomdsdorf). Therefore it would be obvious to one of ordinary skill in the art to modify Cioffi in order to be controlled by a base station so that when transmitting near other base stations noise is minimized.

Allowable Subject Matter

4. Claims 3-11, 14, 15, 17 & 19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 3, 17 & 19, Cioffi teaches the transmitter, method & system of claims 1, 16 & 18, however Cioffi fails to teach where operation is based on time slots and the first power change command indicates a value of the output power required during a time slot starting after an instant of occurrence of the first power change command, and wherein the second power change command indicates a value of the output power required during a next time slot succeeding the first mentioned time slot and starting after an instant of occurrence of the second power change command.

Regarding claim 14, Cioffi teaches claim 12, however Cioffi fails to teach wherein the controller is arranged for controlling the switching circuit to supply either the second power supply voltage or the third power supply voltage to the amplifier power supply input if the output power has to be changed and the power supply to only adapt the second level or the third level depending on whether the second level or the third level has the largest difference from a level of a power supply voltage supplied to the amplifier power supply input.

Regarding claim 15, Cioffi teaches claim 12, however Cioffi fails to teach wherein the controller is adapted for controlling the switching circuit to supply either the second power supply voltage or the third power supply voltage to the amplifier power supply

input if the output power has to be changed and the power supply to adapt the first level and the third level if the second power supply voltage is supplied to the amplifier power supply input wherein the first level is controlled for exceeding the second level or the first level and the second level if the third power supply voltage is supplied to amplifier power supply input wherein the first level is controlled for exceeding the third level.

Double Patenting

5. Claims are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5 of copending Application No. 10/550,340. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claim 1, in view of the copending application's claim 1, both claims recite subject matter directed towards a transmitter comprising a power amplifier a power supply and a switching circuit along with a controller arrangement.

Regarding claim 2, in view of the copending application's claim 2, both claims recite subject matter requiring a transmitter as a handheld apparatus with a receiving circuit.

Regarding claim 3, in view of the copending application's claim 3, both claims recite transmission based on time slots.

Regarding claim 4, in view of the copending application's claim 4, both claims recite language for adapting controlling the power supply to supply at a particular time slot.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

6. Applicant's arguments filed 12/19/2007 have been fully considered but they are not persuasive. Regarding applicant's arguments regarding claims 1, 16 & 18 the applicant contends that the Cioffi reference fails to teach a first level and a second level of a power supply, where the second power level is higher than the first level (applicant remarks page 8). However Cioffi teaches that from the power supply V_{batt} two distinct power levels are generated, namely a first and second level where the second is higher than the first. The examiner has used Cioffi's teaching that based on a threshold level two distinct outputs are created from the power supply a level above the threshold (the greater 'second' power level) and below a threshold (the lower 'first' power level). Cioffi teaches that these two distinct power levels, enabled by the three way node cited by the examiner, are created either through utilizing transistors Q1 and Q2 (high power; 'second') or Q2 and Q3 (low power, 'first'). For the foregoing reasons it is believed by the examiner that the cited Cioffi art reads on the applicant's claim language as Cioffi provides a power supply having outputs to supply either a 'first' low power mode (transistors Q2 & Q3 active) or a 'second' high power mode (transistors Q1 & Q2 active).

The examiner once again wishes to draw the applicant to the claims object to as cited as being unpatentable because they are dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, outlines in section 4 of this action.

For the foregoing reasons the claims remain rejected.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTIAN A. HANNON whose telephone number is (571)272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. A. H./
Examiner, Art Unit 2618
March 20, 2008

/Edward Urban/
Supervisory Patent Examiner, Art Unit 2618